TECHNOLOGIES AND TRUST

EDITED BY PIER GIUSEPPE ROSSI AND LORELLA GIANNANDREA

Media e tecnologie per la didattica
Collana diretta da Pier Cesare Rivoltella, Pier Giuseppe Rossi

La collana si rivolge a quanti, operando nei settori dell'educazione e della formazione, sono interessati a una riflessione profonda sulla relazione tra conoscenza, azione e tecnologie. Queste modificano la concezione del mondo e gli artefatti tecnologici si collocano in modo "ambiguo" tra la persona e l'ambiente; in alcuni casi sono esterne alla persona, in altri sono quasi parte della persona, come a formare un corpo esteso.

La didattica e le tecnologie sono legate a doppio filo. Le tecnologie dell'educazione non sono un settore specialistico, ma un filo rosso che attraversa la didattica stessa. E questo da differenti prospettive. Le tecnologie e i media modificano modalità operative e culturali della società; influiscono sulle concettualizzazioni e sugli stili di studio e di conoscenza di studenti e adulti. I processi di mediazione nella didattica prendono forma grazie agli artefatti tecnologici che a un tempo strutturano e sono strutturati dai processi didattici.

Le nuove tecnologie modificano e rivoluzionano la relazione tra formale informale.

Partendo da tali presupposti la collana intende indagare vari versanti.

Il primo è quello del legame tra media, linguaggi, conoscenza e didattica. La ricerca dovrà esplorare, con un approccio sia teorico, sia sperimentale, come la presenza dei media intervenga sulle strutture del pensiero e come le pratiche didattiche interagiscano con i dispositivi sottesi, analizzando il legame con la professionalità docente, da un lato, e con nuove modalità di apprendimento dall'altro.

Il secondo versante è relativo al ruolo degli artefatti tecnologici nella mediazione didattica. Analizzerà l'impatto delle Tecnologie dell'Educazione nella progettazione, nell'insegnamento, nella documentazione e nella pratiche organizzative della scuola.

Lo spettro è molto ampio e non limitato alle nuove tecnologie; ampio spazio avranno, comunque, l'*e-learning*, il digitale in classe, il *web 2.0*, l'*IA*.

Il terzo versante intende indagare l'ambito tradizionalmente indicato con il termine *Media Education*. Esso riguarda l'integrazione dei *media* nel curricolo nella duplice dimensione dell'analisi critica e della produzione creativa e si allarga a comprendere i temi della cittadinanza digitale, dell'etica dei media, del consumo responsabile, nonché la declinazione del rapporto tra i media e il processo educativo/formativo nell'extra-scuola, nella prevenzione, nel lavoro sociale, nelle organizzazioni.

Per l'esplorazione dei tre versanti si darà voce non solo ad autori italiani, ma saranno anche proposti al pubblico italiano alcune significative produzioni della pubblicistica internazionale. Inoltre la collana sarà attenta ai territori di confine tra differenti discipline. Non solo, quindi, la pedagogia e la didattica, ma anche il mondo delle neuroscienze, delle scienze cognitive e dell'ingegneria dell'informazione.

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E-portfolio and Teacher Training. Building a Culture of Trust in School Contexts

Lorella Giannandrea, University of Macerata

Abstract

This paper presents some thoughts concerning the use of an ePortfolio in teacher training and aims to bring out the complexity and usefulness of this tool in order to promote meaningful and authentic teacher training expertise. The use of an ePortfolio as a tool for assessing teachers' expertise nevertheless evidences a number of critical issues that have been highlighted by the research, since many factors may affect its creation and, consequently, the assessment of the portfolio itself, such as cultural elements and the language and expressive skills of the teacher, author of the ePortfolio. Despite these criticisms, the ePortfolio appears to maintain a valid and fundamental importance in teacher training and shows how a culture of trust and mutual recognition represents the necessary substrate implementing personal and professional growth processes within the school.

Authors' presentation

Lorella Giannandrea is an Assistant professor in Pedagogy at the University of Macerata, Department of Education, Cultural Heritage and Tourism. Her main research interests are conceptual artefacts for reflection, ePortfolio and authentic assessment, educational design, design of learning environment, online learning and teaching, teachers' in-service training.

ePortfolio and teacher training

The use of an ePortfolio as a tool to document and assess teacher training is now quite common, particularly in English-speaking countries (UK, USA, Canada, Australia (Stocks et al., 2012) but its vast geographical spread does not match an equally extensive amount of research papers on the subject.

EPortfolios are used in various contexts and throughout all levels of education, from primary school to university, to vocational training and whilst working. Its free structure makes it a customisable "across-the-board" tool which can be added to different training models and with different purposes. An ePortfolio can contain various artefacts documenting the diachronic development of an individual, arising from various contexts and spaces and relating to different times and places (primary, secondary, university, training, etc...). This is why it is considered a tool capable of providing tangible proof of the author's individual learning paths. This feature is even more significant if observed from the perspective of teacher training.

The ePortfolio in fact favours the productive action of the individual, as it shifts the responsibility for compiling the reconstruction of the personal path and of the learning considerations to the subject-author, together also with the choice of taking on self-training courses, a very functional eventuality for a teacher, who is expected to adopt the idea of a continuous professional development from first training throughout his/her entire career. An ePortfolio, therefore, can be considered a particularly appropriate instrument for the professional development of teachers-in-training.

On the basis of this background, the article wishes to discuss the role which an ePortfolio can have as a support tool for the professional development of teachers-in-training and in the early stages of their working careers. In the first part I will show various types of ePortfolio, classified according to their different functions: for work presentation, to allow consideration of the paths developed, to share successes and failures, to assess the work carried out. Subsequently I will investigate the problem of authenticity and the relationship which exists between the ePortfolio's owner and the people involved in managing and evaluating the portfolio, showing how a culture of trust and of mutual recognition is the necessary base for a successful fulfillment of a program based on ePortfolios.

Without mutual trust between author and evaluator, in fact, neither any form of authentic assessment is possible nor is it conceivable to offer a path which is personally challenging and costly in terms of time and effort. A possible integration of assessment cases and those related to training will be offered in the conclusions, on the basis of the work by Serge Ravet on open badges.

Different types of ePortfolio to support teacher training

1. Explanatory feature

Research has defined various types of ePortfolio, classified according to their different functions: the first type, which is closer to the traditional use

of a Portfolio in out-of-school contexts, is the one sometimes called "showcase portfolio". The presentation and exhibition role is more evident in an international context where the teacher's portfolio is used to examine a candidate who asks to be hired as a teacher in a school. A 2008 survey shows that according to many Canadian teachers, their portfolio was one of the elements which had the greatest weight in their recruitment (Kitchenham, 2008, p. 143). Other researches, conducted in the United States, are of the same opinion; they demonstrated that managers believed that a portfolio allowed a more accurate assessment of the teaching and organisational skills of a candidate when being recruited, rather than a simple interview (Strawhecker et al. 2008).

It may happen that a manager could feel wary of the contents of a portfolio, particularly in the case of a public portfolio, specially made to highlight the strengths of a candidate. The question of the authenticity of the inserted materials and of the connected considerations therefore emerges. On the other hand, as Whitworth and others have emphasised (2011), should the portfolio not be considered by the manager, the building process and the related considerations would still have been a good method of preparing the interview, and its development would therefore be worthwhile in any case.

As for the use of the portfolio in training future teachers, it seems certain that employing this tool can be useful in order to document their paths and the knowledge acquired during their training courses. A careful selection of the documents would enable showing the professional development not only to interested peers and teachers, but to future employers and potentially to anyone. The ability to choose what to show ensures each teacher-in-training can emphasise the aspect considered most effective and significant of the work performed, the one that best represents their expertise and achievements (Strudler and Wetzel, 2011).

2. Reflective feature

The second function of an ePortfolio is that of supporting a base for reflection. Research has highlighted the importance of reflection for a teacher, but this is also one of the professional skills considered mandatory by many teacher training programs, and it is at the top of the standards for teacher accreditation.

The very structure of an ePortfolio encourages reflection, by engaging the author in a continual process of creating meaning from the collection of artefacts documenting the past and the development towards the future. The action, collected and documented through the artefacts included in the selection, is reviewed and commented at a later time, and becomes part of a story which reconnects it to other events and to other documents contained in the portfolio. This distancing and the continuous rethinking of each single event

favours the construction of a reflexive habit which future teachers should carry with them throughout their profession.

3. Social feature

Now that it is widely diffused, the possibility of sharing various contents and some parts of a portfolio has become real and easily accomplished thanks to its digital format and to internet.

Many tools for creating a web-based portfolio contain specific functions which facilitate the connection between users and allow giving and receiving feedback not only from the supervisor or assessor, but also from all peers whom the author of the portfolio authorises to view the work and to comment upon it. The exchange of comments can concern both the included materials and the issues more related to the personal professional curriculum, such as the choice of specific teaching strategies or the decision to plan future study courses.

Some researchers have underlined that, in this sense, the ePortfolio becomes a space for a social creation of knowledge, "a construction that accompanies the progressive construction of the professional identity. This co-construction of the intern's knowledge and professional identity initially takes place among peers. In accordance with and in opposition to them and their feedback, the intern builds a new professional identity, with a unique set of aptitudes and individual talents" (Bucheton, 2003, p. 16).

4. Assessment feature

From an assessment point of view, the portfolio represents an innovation, as it is perhaps the only assessment tool that allows appreciating both the product made and the process that led to its creation at the same time. This duplicity, underlined by Barrett (2005) and by many other researchers, leads to a more authentic evaluation procedure, as it provides a diachronic and contextualised point of view of the student's education and of his/her professional growth. As this is a dynamic object, the very nature of the portfolio is to grow in a personal and fluid manner. For this reason, the evaluation should also take into account this specificity and should therefore be carried out in a shared manner, by involving the student and discussing with him his achievements and any problems he may have encountered. This is a very important aspect, because if the portfolio is perceived by the teachers-in-training simply as a tool for a mark to be assigned and to test their skills, it loses much of its function and its specificity. In some cases, moreover, the creation of the portfolio or ePortfolio is flanked by other more structured and regulatory evaluation methods (Goupil et al. 1999).

Strengths and weaknesses in using an ePortfolio

The adoption of the portfolio and ePortfolio as training and professional development means for teachers has been the subject of numerous discussions, reflections and critiques.

Whilst on one hand there are several researchers (Barrett, Seldin, Zubizzarreta) who appreciate the strengths of the instrument, its ability to support a reflective attitude and the possibility it offers of supporting a personal and professional growth perspective which could last for a whole life, on the other hand there are critical voices which point out the burden in compiling it and the objective difficulty in assessing teachers' portfolios.

Another problematic issue can be traced to the path of compiling the portfolio. Many of the artefacts included in a portfolio, in fact, are written narratives of events, lectures, moments of school life. The channel used to communicate is therefore that of the traditional written composition. This could focus the attention of the evaluator towards different aspects, such as the quality of the written essay. It is therefore necessary that those being evaluated should be able to express themselves fluently and in an articulated manner in order to bring to the surface the complexity of the experiences undertaken and of their value. The risk in any case is that the evaluator should focus more on assessing the product rather than on the appreciation of the thoughts, reflections and processes which should be the true subject of the portfolio. Young and Irvine are aware of this risk, but point out the fact that those who are preparing to become teachers or those who are already working as teachers should have appropriately mastered and nurtured language in its oral and written forms, as this constitutes a "tool of the trade".

Along the same lines, Buckridge argues that in a "training" portfolio, although "the act of writing is not the act of teaching, [...] the writing is nonetheless further constructing the teacher's knowledge base for teaching".

The evaluation of the ePortfolio

The problem arises when it comes to analysing the evaluation means of the portfolios produced by students or future teachers.

Strudler and Wetzel (2011) point out that the purpose for which ePortfolios were initially used in teacher training was mainly to support reflection and learning. Only recently, following the development of increasingly sophisticated commercial applications capable of automatically processing a large amount of useful data for assessing the teachers' training method and

their accreditation, they have been transformed into systems which place great emphasis on managing the accreditation.

The risk, evidenced by several authors (Barrett, 2004; Buckridge, 2008, Carney, 2002), is that the two goals (learning support and accreditation assessment) are not entirely compatible. They claim in fact that using an ePortfolio for many objectives leads to a situation in which none of the many potentialities is best expressed.

Whenever a portfolio is used as a tool for accreditation or for a move to a higher role, the problem of its verification and that of its summative evaluation becomes quite arduous.

As it consists in basically free evidence, with open-ended input and answers, the subjectivity both in interpreting its delivery and in evaluating its contents highlights the difficulty of assessment. In response to this problem, Baume and Yorke (2002) suggested the idea of standardising the creation of the portfolio to some extent, but they discovered that an easier correction and evaluation of the portfolio came, so to speak, with a high price, through the loss of authenticity and of adherence to experience. This type of decrease ends up undermining the very validity of the tool and poses a problem which may be considered as the central issue in the evaluation of a portfolio and/or an ePortfolio.

One cannot consider a rigid standardisation of the contents and objectives of each portfolio, as this would distort the instrument, making it a mere list of passed "exams" which would not attain its main purpose, that of promoting reflection.

The use of an ePortfolio as a tool for a summative assessment has been criticised by several researchers (Gerrish, 1997; Mc Cullan, 2003).

According to these analyses, compiling a portfolio would be time-costly and would lead the students to shift their focus from the hands-on practice of their training. In a certain way, they point out that the construction of an ePortfolio would focus more attention on the writing itself rather than on the contents, on its pleasant presentation rather than on the action itself. This could mean that the ePortfolio's author should possess not only the ability to act and to reflect on the action, but also be able to provide narrative descriptions and write correctly and in a pleasant way for the evaluator who will read it. Besides, there is always the risk that, given the narrative nature of many of the incorporated materials, the authors may tend to write what (according to them) the evaluator would like to hear, rather than reporting an experience as it actually occurred.

There is, therefore, a noticeable tension between the use of the portfolio as a tool for personal growth and reflection and its use for evaluation. Along this line Coleman et al. (2002), point out that, when the evaluation is based

on the ePortfolio as its main instrument, the risk is that the two requirements, that of personal growth and that of reaching a good evaluation may be at odds. Particularly concerning the motivation to obtain a good assessment during accreditation, they bring to the surface the issue regarding the author's honesty, which is potentially crucial for all evaluations, but particularly for those based on the narrative and the documentation produced exclusively by the author himself.

Concerning this matter, Trevitt and colleagues (2012) argue that in order to limit the occurrence of situations that lead to lack of authenticity it is necessary to establish a relationship of trust and transparency between scaffolder, evaluators and ePortfolio authors, in order to reassure the latter regarding the importance of an authentic narration of their own professional growth, stressing that the admission of their 'mistakes' will contribute to a positive growth. Of course it is necessary that the evaluators should have a vision which is able to recognise the process of improvement as a positive value rather than as a penalising element. It is clear, finally, that the practice of preparing e-portfolios grows where there are organisations or institutions interested in this type of evaluation.

According to the reasoning mentioned above, today's ePortfolios cannot meet the demand for a summative evaluation, nor that of being a reliable tool for an identity construction.

One solution could be that proposed by Serge Ravet, who suggests reinventing the ePortfolio through the use of open badges. They could in fact help to build richer and more trustworthy ePortfolios, thereby implementing a genuine opening. In fact, using an open source platform in order to state that an open ePortfolio has been created, is not sufficient. Thanks to Open Badges, the ePortfolio might become not just open, but also shared and dissiminated. Thanks to these features, their trustworthiness would also be enhanced.

The suggestion is to "strengthen" the authenticity of the ePortfolio through the use of a system of "open" badges which would provide an "external" scaffolding system in relation to the ePortfolio's traditional structure.

Two visions of identity come into play (Wittorsky, 2007) concerning the dynamics of identity construction: the first that which the subject builds for himself and the second the one bestowed by others. The same dynamics can be traced in an online training course, where the "virtual" identity attributed to the subject by the working group is built through interactions, simulations and the various activities in which the students are engaged during the course. According to Wittorsky's vision, we can imagine that the trainees' identity construction dynamics should be supported by the implementation of the ePortfolio for the former phase (that of self-building implemented by the

subject on himself), whilst the latter, namely the construction of a socially recognised identity, should be documented by the distribution of badges.

Ravet summarises this movement precisely in this sense: "In a presentation I gave in 2009 on "ePortfolio, the engine for learning communities" I presented ePortfolios as "the threads of the social fabric constructing our identity." Due to the siloed nature of current ePortfolios, this didn't happen. With Open Badges, things are slightly different: no more silos and many threads, the threads of Open Badges feeding our interwoven networks of trust".

Thanks to the portable and interconnected nature of open badges, it becomes possible to map the skills of a person, of an organisation, of a territory, easily in real-time. The construction of a network of accredited and complex badges renders the recognition of informal learning just as valid and worthy of trust as the traditional accreditation of a formal setting training.

Figure 1. ePortfolio revisited

The traditional construction cycle of an ePortfolio which begins by collecting practical and action artefacts and then passes through selection, reflection, publication and accreditation is thus enriched by the public features of the badges, which facilitate recognition and accreditation.

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